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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,750	12/07/2000	Osamu Hashimoto	50090-247	9440

7590 01/30/2002

McDermott, Will & Emery
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

NGUYEN, JIMMY

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/730,750

Applicant(s)

HASHIMOTO ET AL.

Examiner

Jimmy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on application 12/7/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s): ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The specification is objected to because
Page 11 line 19 exchange board 22 instead of 20
Page 11 line 19 spacer 20 instead of 22
Page 11 line 33 exchange board 22 instead of 14
Correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tada et al (US 4801871) in view of Chiba (US 6100585).

Regarding claim 1, Tada et al discloses (fig 5 and 6) an inspection apparatus for inspecting a plurality of semiconductor IC mounted on a base board including

A plurality of relay pins (R1, R 2) electrically connected to a wiring pattern laid on the base board (4)

Sockets (2) provided on the base board (4), each housing a semiconductor IC (1). However, Tada et al is silent on the

Exchange boards, each electrically connecting socket terminals of a socket to a specific relay pins and spacers interposed between each of the exchange boards and the base board. On the other hand, Chiba (FIG 2) teach

Exchange boards (15), each electrically connecting socket terminals (15a) of a socket to a specific relay pins (16a) and spacers interposed (16a) between each of the exchange boards (15) and the base board (13)

The relays pin 16a performs as the interposed spacer and relays pin itself

It would have been obvious to one having ordinary skill in the art to provide the exchange board and spacer interposed within the socket mounted device for the purpose of ensuring the wiring pattern connected to socket pins to be lead onto the relay socket in its externally exposed area.

Regarding claim 3, Chiba teach the exchange board (15) is provided with a pin socket (15a) for holding the relay pins (16a) and the relay pins are removably attached to the exchange board (15)

Regarding claim 4, Chiba teach the base board (13) has a pin socket (15a) for holding the relay pins (16a), and the exchange board (15) is removable from the base board (13) together with relay pins (16a)

Regarding claims 5, 6, Tada et al discloses (fig 1) a circuit element or a pattern for receiving a circuit element is formed in an area on the base board (40), the area opposing the exchange board

Regarding claim 2, The examiner takes official note that the exchange board is a film like sheet board, and a reinforcement plate for reinforcing the sheet like board is provided between the sheet like board and the spacers would have been an obvious choice within the Chia reference because the exchange board is a film will ensure the durable and provide better reinforcement for dut during testing.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tada et al (US 4801871).

Regarding claims 7, 11, Tada et al discloses (fig 1)

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A plurality of connection terminals (3a-3j) electrically connected to terminals of an inspection main unit (30)

A plurality of wiring patterns (40) connected to terminals (1a – 1j) of a semiconductor IC (DUT); and

A junction unit (RV 1 – RG10) for changing the state of a junction formed between the connection terminals and the wiring pattern

Regarding claims 8-10, Tada et al discloses (fig 1, 5, 6)

The junction unit (RV 1 – RG10) includes a pin socket (2) for connecting the wiring pattern (40) to the connection terminals when a pin is inserted into the pin socket (2), and the pin socket (2) is interposed between each of a plurality of wiring patterns (40) and a single connection terminal and /or between each of a plurality of connection terminals and a single wiring pattern


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

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JN.
Jan 28, 2002

 1-28-02

MICHAEL J. SHERRY
PRIMAR - CHAIRMAN